



Explorers Program Overview

**2021 Astrophysics Explorers
Concept Study Kickoff**

**Cathy Peddie
Explorers Associate Deputy
September 29, 2022**



Explorers Program Overview (1 of 2)



- NASA's oldest, continuous program
 - Over 100 successful missions since 1958
- Program Objective—Frequent flight opportunities for world-class scientific investigations
- Uncoupled program of missions with unique science capabilities supporting heliophysics and astrophysics science goals



Explorers Program Overview (2 of 2)



- Mission class characterized by size, schedule, and budget cost caps
 - MIDEX
 - SMEX
 - Mission of Opportunity
- Missions solicited through Announcement of Opportunity
- Missions developed in Principal Investigator mode
- Mission oversight provided by the Explorers Program Office at GSFC

Explorers Missions

MIDEX



SMEX



UNEX • MO • INTERNATIONALS



Astrophysics Missions

Current Astrophysics Missions

Heliophysics Missions

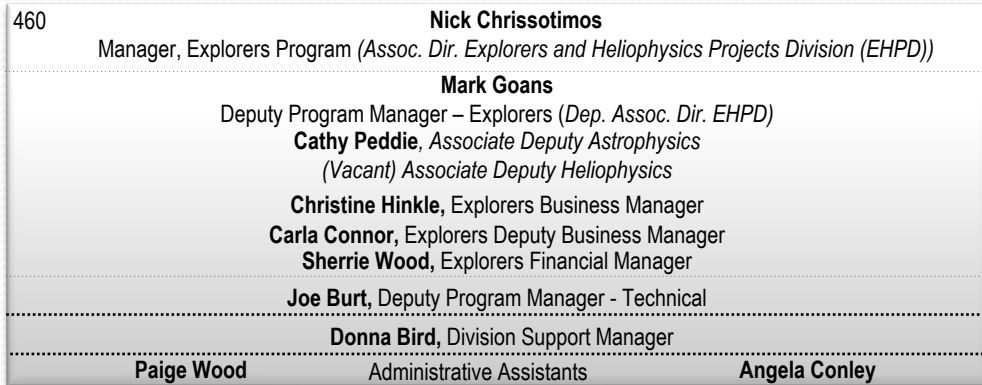
Current Heliophysics Missions



Explorers Program Organization Chart



SMD
Astrophysics & Heliophysics Divisions



Explorers/
Astrophysics

Systems Engineering
John Staren

Mission Assurance
Joe Calabrese

Business Pool
Procurement | Proj. Support | Financial

LV Liaison
Tom Jones

Rideshare Office
Keith Chamberlin

ATHENA*
Joy Bretthauer, PM
Andy Ptak, PS
Dee Bradel, FMS

CASE
David Carter, MM
Mark Swain (JPL), PI
Moshe Pniel (JPL), PM
Justin King, FMS

COSI
Chanel Duncan, MM
John Tomsick (UCB), PI
Cathy Chou (UCB), PM
Kyle Young, Sr. RA

Euclid*
Cathy Peddie, MM
Michael Seiffert (JPL), PS
Moshe Pniel (JPL), PM
Vacant, Sr. RA

GUSTO
LaMont Ruley, MM
Christopher Walker (UA), PI
Matt Reinhart (APL), PM
Julie Myers, Sr. RA

SPHEREx
Cathy Peddie, MM
Roger Kraus, Deputy MM
Jamie Bock (Caltech), PI
Allen Farrington (JPL), PM
Ken Lee, FMS

XRISM*
Lillian Reichenthal, PM
Richard Kelley, PI
Sherrie Wood, FMS

*Strategic Missions



Explorers Program Organization Chart



SMD

Astrophysics & Heliophysics Divisions

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Nick Chrissotimos

Manager, Explorers Program (Assoc. Dir. Explorers and Heliophysics Projects Division (EHPD))

Mark Goans

Deputy Program Manager – Explorers (Dep. Assoc. Dir. EHPD)

Cathy Peddie, Associate Deputy Astrophysics

(Vacant) Associate Deputy Heliophysics

Christine Hinkle, Explorers Business Manager

Carla Connor, Explorers Deputy Business Manager

Sherrie Wood, Explorers Financial Manager

Joe Burt, Deputy Program Manager - Technical

Donna Bird, Division Support Manager

Paige Wood

Administrative Assistants

Angela Conley

Systems Engineering

John Staren

Mission Assurance

Joe Calabrese

Business Pool

Procurement

Proj. Support

Financial

LV Liaison

Tom Jones

Rideshare Office

Keith Chamberlin

AWE

LaMont Ruley, MM
Michael Taylor (USU), PI
Burt Lamborn (SDL), PM
Sherrie Wood, FMS

ESCAPADE

Glenn Iona, MM
David Curtis (UCB), PI
Robert Lillis, (UCB), PM
Ben Shoster, FMS

EUVST

Jonathan Burroughs, MM
Harry Warren (NRL), PI
Don McMullin (NRL), PM
Vacant, Sr. RA

EZIE

Ryan Turner, MM
Jeng-Hwa Yee (APL), PI
Nelofer Mosavi (APL), PM
Jessica Hamill, Sr. RA

HelioSwarm

VACANT, MM
Harlan Spence (UNH), PI
Butler Hine (ARC), PM
Carla Newman, Sr. RA

MUSE

Roberto Aleman, MM
Bart DePontieu (LMATC), PI
Gary Kushner (LMATC), PM
Julie Myers, Sr. RA

PUNCH

Tyrone Dillard, MM
Craig DeForest (SwRI), PI
Ronnie Killough (SwRI), PM
Ken Lee, FMS

SunRISE

Cathy Peddie, MM
Roger Kraus, Deputy MM
Justin Kasper (UMI), PI
Jim Lux (JPL), PM
Julie Myers, Sr. RA

TRACERS

David Carter, MM
Keith Cleveland, Deputy MM
Craig Kletzing (UI), PI
Ron Black (SwRI), PM
Justin King, FMS

**Explorers/
Heliophysics**



Explorers Program Office

Roles/Responsibilities (1 of 2)



- Support the Principal Investigator in achieving mission success and ensure that the mission complies with all applicable government and NASA-specific policies and regulations.
 - Provide comprehensive oversight of the mission development process by conducting ongoing assessments of the mission's cost, schedule and technical progress.
 - Provide mission status to NASA GSFC and HQ through monthly reviews, weekly reporting and timely notification of problems & resolution plans.
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Explorers Program Office

Roles/Responsibilities (2 of 2)



- Coordinate the provision of certain services and equipment as required, such as space communication support, launch services, etc.
 - Provide recommendations for the chair and membership of the Standing Review Board.
 - Appoint a Mission Manager for full missions not managed by GSFC and all missions of opportunity.
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Mission Manager Roles/Responsibilities



The Mission Manager will:

- Serve as the Goddard point of contact and the Contracting Officer's Representative or Task Monitor, as required.
 - Lead the GSFC engineering, mission assurance and business teams in obtaining detailed cost, schedule and technical insight to facilitate reporting to GSFC and HQ.
 - Provide access to the Goddard services and support as requested (e.g., EEE parts lab, board coupon testing, materials lab, SMA services and engineering services).
 - Ensure that adequate government resources are applied to the mission as required.
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Explorers Program Team



- Mission Manager
- Systems Engineer
- Instrument Systems Engineer
- Mission Assurance Lead
- Senior Resource Analyst
- Scheduling/Planning
- Configuration Management

- Other Program Support Available:
 - Instrument Systems
 - Electrical Systems
 - Mechanical Systems
 - Quality Engineering
 - System Safety
 - EVM Lead



Available Goddard Services



- Available GSFC services include:
 - EEE parts testing
 - Radiation effects analysis/testing
 - Materials engineering support (includes board coupon testing)
 - Thermal coatings engineering support
 - Discipline engineering support
 - Space communications support
 - Instrument detector systems support
 - Tiger Team and Anomaly Review Team Support